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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/677,468

10/02/2003

Walid N. Aboul-Hosn

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06/23/2009

LAW OFFICE OF ALAN W. CANNON
942 MESA OAK COURT
SUNNYVALE, CA 94086

EXAMINER

NGUYEN, CAMTU TRAN

ART UNIT

PAPER NUMBER

3772

MAIL DATE

DELIVERY MODE

06/23/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/677,468	Applicant(s) ABOUL-HOSN ET AL.	
	Examiner Camtu T. Nguyen	Art Unit 3772	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 March 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-6, 20 and 21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-6, 20 and 21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

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|--|---|
| 1) ☒ Notice of References Cited (PTO-892) | 4) ☐ Interview Summary (PTO-413) |
| 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) ☐ Information Disclosure Statement(s) (PTO/SB/08) | 5) ☐ Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) ☐ Other: _____ |

DETAILED ACTION

Response to Amendment

This Office Action is responding to applicant's amendment filed on 3-30-2009.

Claims 3 & 4 have been amended. Claims 20-21 are newly added.

Response to Arguments

The Objection of the Drawings presented in the previous Office Action has been withdrawn in view of applicant's response.

The Wang reference applied in the 102 rejection has been withdrawn in view of applicant's remarks, in particular, that the Wang reference does not teach introducing an intake cannula through the hemostatic seal & opening of the delivery conduit.

The Wang reference applied in the 103 rejection has been withdrawn in view of applicant's remarks.

The claims, as amended, have been carefully considered but deemed not persuasive in view of the following rejection(s).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2-6, 20, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wang (U.S. Patent No. 6,106,497) in view of Yoon (U.S. Patent No. 5,441,486)

Wang discloses a system comprising an intake tube (18) for transporting blood from the left ventricle (33) to a (blood pump) machine (24), a delivery tube (14) including an opening for transporting (CO₂) into the left atrium (54) and the delivery tube (14) is connected to a fluid source (10).

The Wang system discloses hemostatic seal (46) sealing the opening of delivery tube (14).

The Wang system does not teach the intake tube (18) introduced through the hemostatic seal (46) & opening of delivery tube (14).

Yoon discloses in Figure 1 a tube (14) having an opening (28), a seal assembly (12) for sealing the opening and the seal assembly (12) having a passage (38) for receiving an instrumental object therethrough.

Therefore, it would have been obvious to one skilled in the art to modify the Wang system such that its intake tube (18) is received through valve (46), as arranged & taught by Yoon for purposes of better flow control.

The Wang/Yoon combination would perform applicant's method of providing left side cardiac support when condition of negative pressure exists in the left atrium.

With are regards claim 2 reciting the blood pump, the heart-lung machine (24) is a cardiac bypass machine, which is well known to inherently including at least a pump.

With regards to claims 3 & 4, delivering fluid inherently performing the steps of these claims.

Regarding claim 5, Figure 1 in the Yoon reference illustrates when an instrumental object is inserted through valve (12) & tube (14), the instrumental object is in coaxial within the tube (14). With that in mind, as the Wang/Yoon presented above, the intake tube (18) would disposed in coaxial relationship within the delivery tube (14).

With regards to claim 6, see Figure 1 in the Wang reference.

With regards to claims 20 reciting a liquid source, the Wang discloses carbon dioxide as fluid (column 9 lines 22). Furthermore, by definition, a fluid is a substance, as a fluid or gas (dictionary.com). Furthermore, applicant's specification discloses suitable fluids (liquids and/or gases), including but not limited to carbon dioxide (page 9 lines 2-6). On that note, the Wang's fluid is consistent with applicant's definition.

Regarding claim 21, the Wang reference does not explicitly teaches saline, however, it discloses that other similar gases/fluids can be effectively use in place of carbon dioxide (column 4 lines 37-41). With that in mind, applicant discloses in the specification that saline as one of many fluids preventing air embolisms, hence, saline is known in the art for such purpose, as Shettigar of U.S. Patent No. 4,955,857 discloses the use of saline to remove all air bubbles (column 16 lines 9-11). Therefore, it would have been obvious to one skilled in the art to recognize saline as an equivalence to perform the same intended purposes.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Camtu T. Nguyen whose telephone number is 571-272-4799. The examiner can normally be reached on (M-F) 8:30-5:00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patricia Bianco can be reached on 571-272-4940. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Camtu T. Nguyen/
Examiner, Art Unit 3772

/Patricia Bianco/

Supervisory Patent Examiner, Art Unit 3772